

## ANTIMICROBIAL COATINGS FOR MEDICAL APPLICATIONS

## ABSTRACT OF THE DISCLOSURE

The invention generally is related to preventing or inhibiting microbial infections on live tissues or in relation to the use of medical articles. In one  
5 embodiment, the invention is directed to a method for forming an antimicrobial coating on live tissue or a medical article, such as, for example, a catheter. The method includes applying to a live tissue or a surface of a medical article an aqueous or non-aqueous composition that includes at least one silane of the general formula  $R^1_nSi(OR^2)_{4-n}$  wherein, n is an interger of 1 or 2,  $R^1$  generally is a lower alkyl group, a  $C_6$ - $C_8$  aryl  
10 group, or a functional group, such as vinyl, acrylic, amino, mercapto, or vinyl chloride functional group, and  $R^2$  generally is a lower alkyl group. A partial condensate of a silanol of the formula  $R^1Si(OH)_3$  also can be used. The composition includes one or more additional ingredients. The method also includes reacting and/or curing the silane, in the presence of the one or more ingredients, thereby forming the antimicrobial  
15 coating.